

in the news

INSIDE

The Tech looks at the proposed TA cutbacks in the Electrical Engineering Department and the effects of the proposal on undergraduate and graduate students.

p3

The Boston Shakespeare Company recently opened a presentation of *The Merchant of Venice*, which now runs in repertory with their production of *A Midsummer Night's Dream*.

p6

Monday was Patriots' Day; the day all of Greater Boston turned out for the Boston Marathon. Three MIT students share their experiences of running in the annual spring classic.

p8

CAMPUS

About a hundred students attended a get-together Wednesday at the Undergraduate Association Offices this week. The event was intended to let undergraduates "get to know" the newly elected officers, according to new UAP Peter Berke '78.

Laurence R. Young, an MIT biomedical engineer, has had his experiment to investigate the effects of Space motion sickness and weightlessness selected by NASA to be aboard the first Spacelab flight in 1980.

NATION

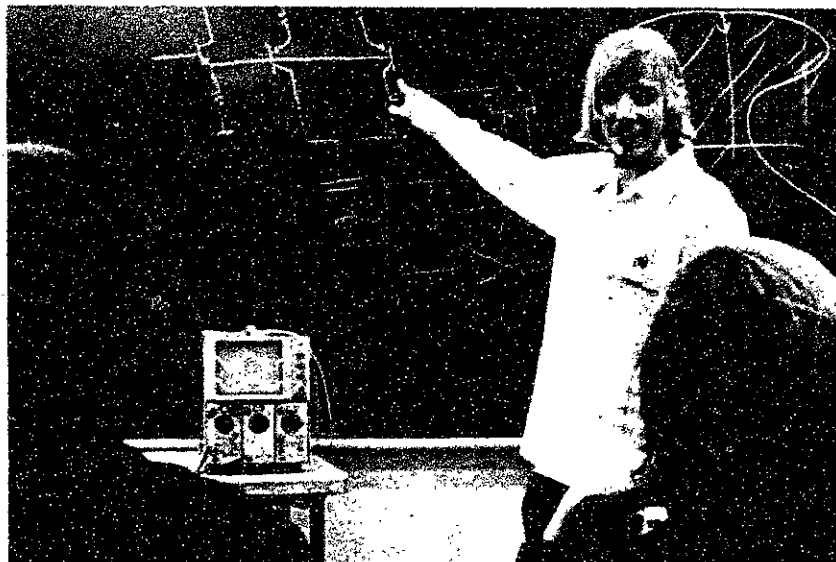
Addressing a joint session of Congress for the first time, President Carter outlined his comprehensive energy program for a national television audience Wednesday night. The emphasis of his program is on conservation through taxes and rebate inducements.

The US House of Representatives voted late Wednesday to prohibit American businesses from knowingly complying with the Arab boycott of Israel. This prohibition was a major goal of President Carter's election campaign last fall.

THE TECH

Kent Pitman '80 and Bob Wasserman '80 were appointed Associate News Editors last week. The appointments are pending final approval of The Tech Board of Directors.

Course VI to eliminate 25% of TA's



Tutorials in advanced electrical engineering subjects, such as this one in feedback systems, may not exist next term.

By Steve Kirsch

The character of instruction in the Department of Electrical Engineering and Computer Science will be substantially altered next fall due to a reduction in the number of its teaching assistants (TAs), according to Professor of Electrical Engineering Frederick C. Hennie, III, executive officer of the Department.

The Department simply can no longer afford to maintain the large number of TAs it requires for the unique type of highly individualized instruction known as a tutorial. For the last four years, the Department has been faced with a budget that has not kept pace with the number of its students, according to Associate Dean of the School of Engineering James D. Bruce '60. During this period, the Department chose to "dip into its reserves" in order to maintain the level of its educational program, stated Hennie.

Now these "reserves," unspent funds that have accumulated over the years, are running out. The Department plans to reduce its 106 TAs to around 50 — a level that Hennie feels can be supported by the present budget. The cut will be in two stages: half this fall and half the year after.

TAs will not be cut evenly from each subject, according to Hennie. Lab subjects will continue to have TAs. Core courses with no tutor-

ials where students from different backgrounds need to be "brought up to speed" will probably keep their TAs. This means that the number of TAs in advanced subjects will be drastically reduced necessitating a shift from the tutorial to some other form of instruction.

Faculty reaction to the TAcut is mixed. Professor of Electrical Engineering James R. Melcher avidly supports the tutorial program. "Tutorials are what separate MIT from the rest of the electrical engineering schools in the country. I would eliminate recitations before I cut out tutorials."

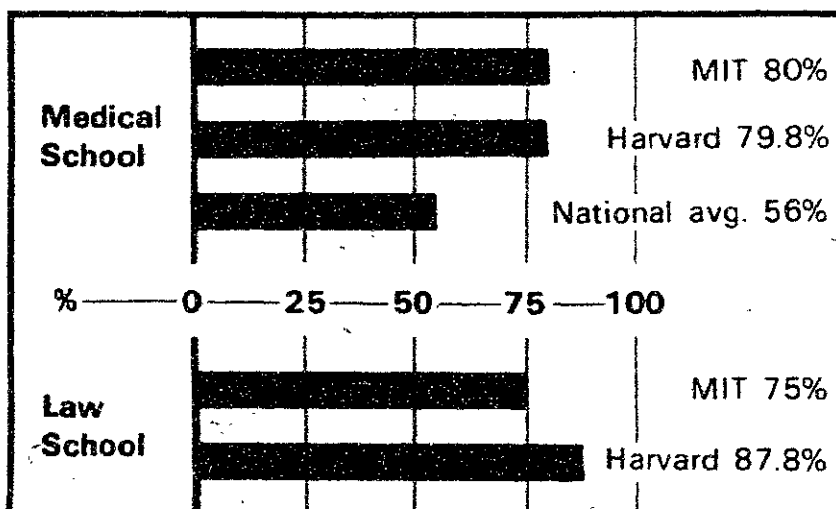
Course evaluation surveys reveal that students feel the same way. "When a good TA is teaching a tutorial, there is no doubt that students feel it is the best part of the course. And I would agree with them," says Professor of Electrical Engineering Alan V. Oppenheim.

Sadly, not all tutorials are well attended. Some TAs have had students who never miss a tutorial. However, an informal survey of faculty and TAs revealed that on the whole, only about 60 to 80 percent of the students attend tutorials. Thus, some faculty see tutorials as "a nice thing to have pedagogically" but due to their cost, view them as a luxury. Though tutorials are viewed as

Please turn to page 3

Graduate school acceptances

MIT publishes favorable stats



The above graph shows the number of students from MIT, Harvard, and other US schools that were accepted into graduate schools.

By Barbara J. Hill

A university's reputation for turning out successful grad school applicants is an important prestige point in any school's image. It is a crucial selling point for prospective students; therefore, it is not surprising that most colleges guard actual statistics in a bureaucratic fortress of amazing proportions. Sometimes, however, the facts are truly favorable, i.e., publishable, as in the cases of both MIT and Harvard.

MIT, with its penchant for compiling, correlating, and happily crunching huge piles of data, has charted its reputation into fairly comprehensible (and available) form. The overall picture is excellent. According to publica-

tions of the MIT Office of Career Planning and Placement and the MIT Committee on Preprofessional Advising and Education, for applicants in 1976:

- 80 percent of those applying were offered admission to at least one medical school, while the national average of acceptance holds at 36 percent.
- 75 percent of SB candidates applying were admitted to law school, with 65 percent of alumni also accepted.
- MIT continues to do well in its pet fields of math, physics, and engineering.
- For business schools, MIT literature claims that "a reasonably strong MIT candidate is pretty certain to be accepted at a leading school if he spreads his chances among four or five."

The Harvard class of 1976 statistics do seem to justify its somewhat overwhelming pride in undergraduate performance, with a slight problem in the area of business. According to the Harvard Office of Career Services and Off-Campus Learning —

- Medical schools accepted 79.8 percent of Harvard's applicants.
- Law schools accepted 87.8 percent of those applying from Harvard.
- 61.7 percent of applicants enrolled in business school and 92.7 percent of all other students applying were admitted to their respective graduate schools.

For the most part, both MIT and Harvard students applied to the same schools, both were accepted in comparable percentages, and both will always point to the same statistics as proof that their university is the better of the two.

Loui wins new election for chairman of Dormcon

By Nivin Pei

Warren Loui '78 was elected Dormitory Council Chairman in a new election last night a week after Dormcon refused to ratify his earlier election to the same post.

At yesterday's meeting, Loui presented a rebuttal to the arguments offered at the last meeting in favor of holding a new election. According to Loui, the failure to ratify his election suggested that the members of Dormcon were interested in adhering closely to their constitution in their interpretation of who was to represent Burton House.

In order to be consistent, the attempt at ratification should also be held invalid because Bexley,

who joined Dormcon at the ratification meeting, was considered a new member and should not have been allowed to vote at that meeting, said Loui.

At last week's meeting Paul Lagace '78, Vice President of MacGregor House, raised the question of whether Loui had the right to cast ballots for Burton House. The official Burton representative was supposed to be Burton House President Phil Kesten '78.

Loui stated that Kesten had given him a proxy, but Kesten responded that he did not recall having done so. Following a lengthy discussion, ratification of the Dormcon election was moved and defeated.



Warren Loui '78 was once again elected Dormcon Chairman last night.

Police Blotter

Officers Capture Suspect in Boston

Acting on the reported presence of a suspicious person in the East Campus dorms, a responding Officer encountered a man known to MIT Officers for his past nefarious conduct on the campus, including his arrest here last fall on Grand Larceny charges. Upon being told to stop, the man struck the Officer, ran to a nearby motor vehicle, and fled westbound on Memorial Drive. Alerted by radio transmission, cruiser officers trailed him over the BU Bridge, where on Commonwealth Avenue he was brought to a halt by Officers from the MIT, Cambridge and Boston Police Departments. Arraigned the following morning on charges of Breaking and Entering in the Nighttime and Assault and Battery on a Police Officer. A check with the Probation Office revealed three outstanding default warrants in the suspect's name (including two stemming from armed robbery charges). His several trials have now been scheduled.

Burglary at Wood

A first-floor resident of the Wood dormitory awoke at 7:30pm recently to find a stranger stealing his 10-speed bicycle. A chase to Ames Street ensued, where the burglar conceded: "I guess I have your bike," then dropped it and ran towards Main Street. The student later found \$10 cash missing from his room, apparently taken by the same man.

Mustang Stolen from Drive

A 1966 Ford Mustang was stolen from its parking place on Memorial Drive in front of Baker House sometime between 6pm Monday and 10:30am Wednesday of this week.

Bike Stolen at Student Center

A Raleigh 10-speed bicycle secured to a rack outside the Student Center by a cable and lock was reportedly stolen last Wednesday at 3pm.

Corvette Taken from Alley

One car was abandoned and another stolen from the intersection of Endicott Street and Amherst Alley early Wednesday morning. The "dumped" vehicle — unbeknownst to its owner — had been stolen earlier in the day in Boston. The newly taken car, the property of an MIT student, was a rust colored 1968 Corvette.

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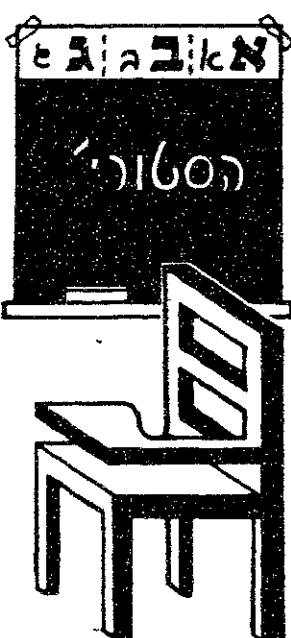
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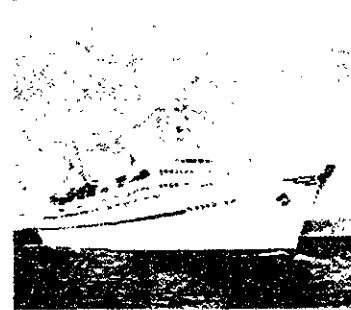
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TA cuts will not affect all students equally

By Steve Kirsch

In 1963, the Department of Electrical Engineering and Computer Science ran an experiment where two or three undergraduates met with a graduate student teaching assistant (TA) for an hour to discuss course material. These sessions, known as tutorials, were enjoyed so much by the students that they were adopted as standard procedure in departmental core courses. Now, almost 15 years later, this program is being sharply curtailed.

For the last four years, the department has been faced with a budget that has not kept pace with the number of students. As a result, the department plans to reduce the number of its TAs—a decision that will cause a substantial reduction in the department's tutorial program.

The decision to cut TAs is a

logical one. Since the crisis began four years ago, administrative costs have been reduced as much as possible and the size of the faculty has remained constant, says Professor of Electrical Engineering Frederick C. Hennie, III, executive officer of the department. Since about a quarter of the academic budget goes toward paying TAs, a small TA cut will allow the Department to operate within its budget.

Two alternatives have been suggested to replace the present tutorial program. The number of students in each tutorial might be increased, making tutorials more like recitations and losing the individual contact so highly praised in tutorials. Scheduling office hours for each TA is another solution. Students who need the most help would be able to get it, leaving the more ad-

vanced students to seek enrichment elsewhere.

Whatever the response to the TA cut, some things are certain. "We won't be able to teach as much as we do now. I think there is no question about that," said Professor of Electrical Engineering Hermann A. Haus. Faculty members will be forced to spend more of their time teaching since

Jr. of the Graduate Office. Typically, VI-A students have relied on teaching assistantships or fellowships to support themselves because faculty members are hesitant about offering research assistantships to students who are only on campus for a short period of time.

Now that the number of TAs is being reduced, the outlook for

Provost, realizes the importance of the TA cut.

Chancellor Paul E. Gray '54, a professor in the department from 1960 to 1971, knows just how valuable tutorials are. "It would be a great loss to the department and students if that [the one-to-one interaction provided by tutorials] were diminished."

However, Gray also agrees with many faculty members that tutorials are less important during an undergraduate's later years when individualized contact with faculty is possible through other programs such as the undergraduate thesis and UROP.

The Department of Electrical Engineering and Computer Science is the largest department in the Institute with about 20 percent of all undergraduates and about 20 percent of all TAs. It is the only department in the Institute with a substantial tutorial program. If its budget does not increase by half a million dollars, this program will no longer exist 17 months from now.

"Students specializing in computer science

will not notice a substantial change . . ."

fewer TAs will be available to teach recitation sections and tutorials. Education will inevitably become more of the responsibility of the faculty.

Not all students will be equally affected by the TA cut. Students specializing in computer science will not notice a substantial change in the education they receive. Computer science courses, for historical reasons, generally do not have tutorials. The few TAs they have are necessary for running the course and will probably not be cut, according to Hennie.

Students in Course VI-A, the departmental cooperative education program, will find it harder to get funding for their graduate education, says Horace M. Smith,

VI-A students seeking support looks bleak. Smith is not sure where they will get money. "Borrow the money probably. I don't see any other way around it."

All money received by the department must come from the Institute, according to Associate Dean of the School of Engineering James D. Bruce '60. And the Institute, comprised of the President, the Chancellor, and the

EE tutorials cut back

(Continued from page 1)

being "very useful" in introductory subjects, they are seen as a means of subsidizing graduate students when used in upper level subjects.

The effect of the TA cut on graduate students will be negligible. TAs in graduate subjects are used primarily for problem set grading—there have never been tutorials in graduate subjects. These TAs can be replaced by hourly employees or by having students grade each other's work.

Teaching assistantships have long been a source of income for graduate students. However, Horace M. Smith, Jr. of the Graduate Office, expects that graduate students will find it no more difficult to receive support now than before because the number of research assistantships has increased while the number of admitted graduate students has decreased by slightly more than the number of TAs that will be cut.

Two other departments in the School of Engineering face similar problems, according to Dean Bruce. Both the Mechanical

Engineering and Chemical Engineering Departments are growing much faster than their budgets. Neither department has a substantial number of TAs, so they react in different ways—by increasing the teaching load and shifting to less individualized instruction, e.g., from four recitations a week to two lectures and two recitations a week.

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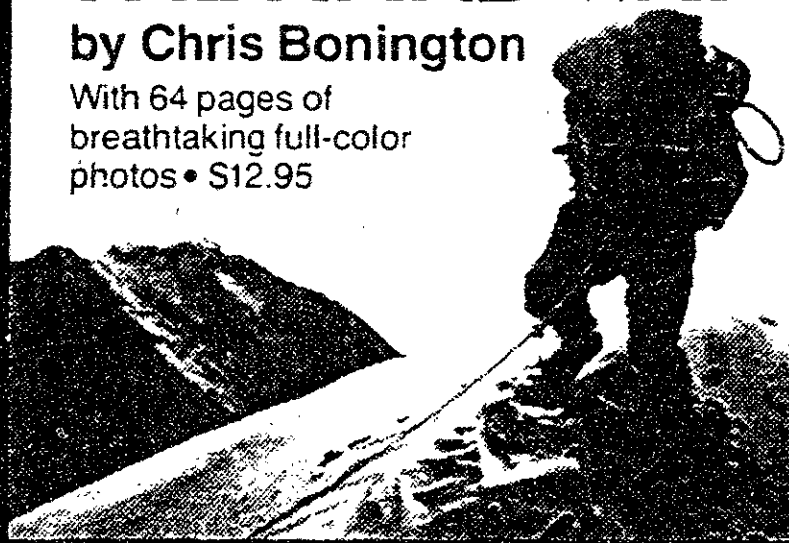
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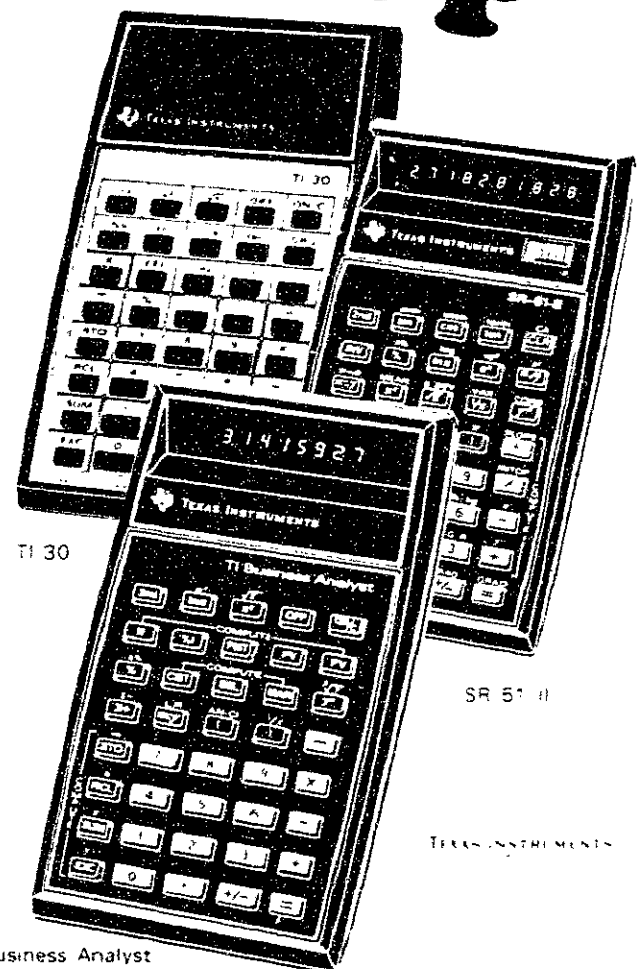
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Hopkinton to Boston in the BAA Marathon

By William Lasser

They begin on Hayden Rowe St. in Hopkinton, turn quickly onto Route 135, and 25 miles and a few hours later they find themselves in Kenmore Square, surrounded on two sides by hordes of spectators: then they run through a narrow passageway between the crowds to the Prudential Center, where it all ends.

They are the Boston Marathoners, men and women carrying forth the ancient tradition begun when the Athenian messenger Pheidippides raced home from the Battle of Marathon, a distance of some 24 or 25 miles, with news of victory. The luckless Greek, instead of winning a trophy or a medal at the finish, died there.

There is nothing quite so amazing to the non-runner as the thought of people actually propelling themselves by foot alone over a distance of 26 miles, 385 yards in just a few hours. True, we can drive 10 times that distance in about the same time, and man has even gone 10 thousand times as far in our journeys to the moon. But to run it, with the aid only of a good pair of running shoes and a lot of sheer determination, is awe-inspiring.

It is in a way humbling to watch these athletes. For they seem to have no special talent except perfectly-conditioned bodies and enough will power to train for months before and then last through the grueling course. The first finishers are indeed special people, truly unique athletes. But the thousands that they are like the rest of us, except that they work harder.

Watching the runners, one knows that he could do as well if only he had the perseverance and fortitude that they must have. Instead of going to Fenway Park for the annual Patriot's Day game or basking in the sun, these people run their bodies to the limit of endurance, enduring pain and suffering for the simple thrill of finishing.

They converge on Boston from all over the country, they complain about the poor organization and the thoughtless spectators who ride beside them on bicycles, snap pictures and scream directly into their ears. There are other marathons. But this one is the Boston Marathon, this one has the color, the tradition, the thrill of just being there.

Their shirts reveal their diverse backgrounds and their different personalities. Some wear plain T-shirts, but most want to say something to the millions watching. "Central Park AC," "American Medical Joggers Association," "Buffalo Philharmonic Athletic Club," proclaim some of the shirts. Others tell of marathons past, from Philadelphia to Hawaii. One runner's shirt said "I get my thrill" on the front; as he went by, the back of his shirt concluded, "On Heartbreak Hill."

And each one of their faces told a story. Some looked as if they were out for an afternoon stroll, others as if they could go no further. There was pain and victory and complacency on those faces. At Kenmore Square, one runner grabbed his legs in agony, looking gaunt and ghostly, surely finished. He didn't stop.

It is a refreshing change from the professional sports world of contract disputes, player strikes and ever-increasing ticket prices. The racers pay a few dollars as an entrance fee; 10 receive trophies, 25 get medals and the rest of the finishers are given certificates. The 1.5 million spectators who line the route pay nothing, although some provide water or nourishment as the racers go by.

The question probably most often asked of marathoners is a simple one: "Why?" Why do they do it, sacrifice their free time and their energy in pursuit of the goal of running the Boston Marathon? We cannot understand the feeling because we have not done it. But all of us, all of the 1.5 million onlookers, wanted to be in it, wanted to go up Heartbreak Hill and come back down to Boston, wanted most of all to be able to say, "I finished. I finished the Marathon."

feedback

Nomcom plan endorsed

To the Editor:

Allow me to correct an error made in the recent election issue of *The Tech*. Dave Koretz is interpreting the UA constitution correctly when he says that Nomcomm reps are chosen by the General Assembly (GA). However in actual practice, Nomcomm has been selecting its own members for the past several years, and in recent changes to the Nomcomm bylaws, the GA authorized Nomcomm to con-

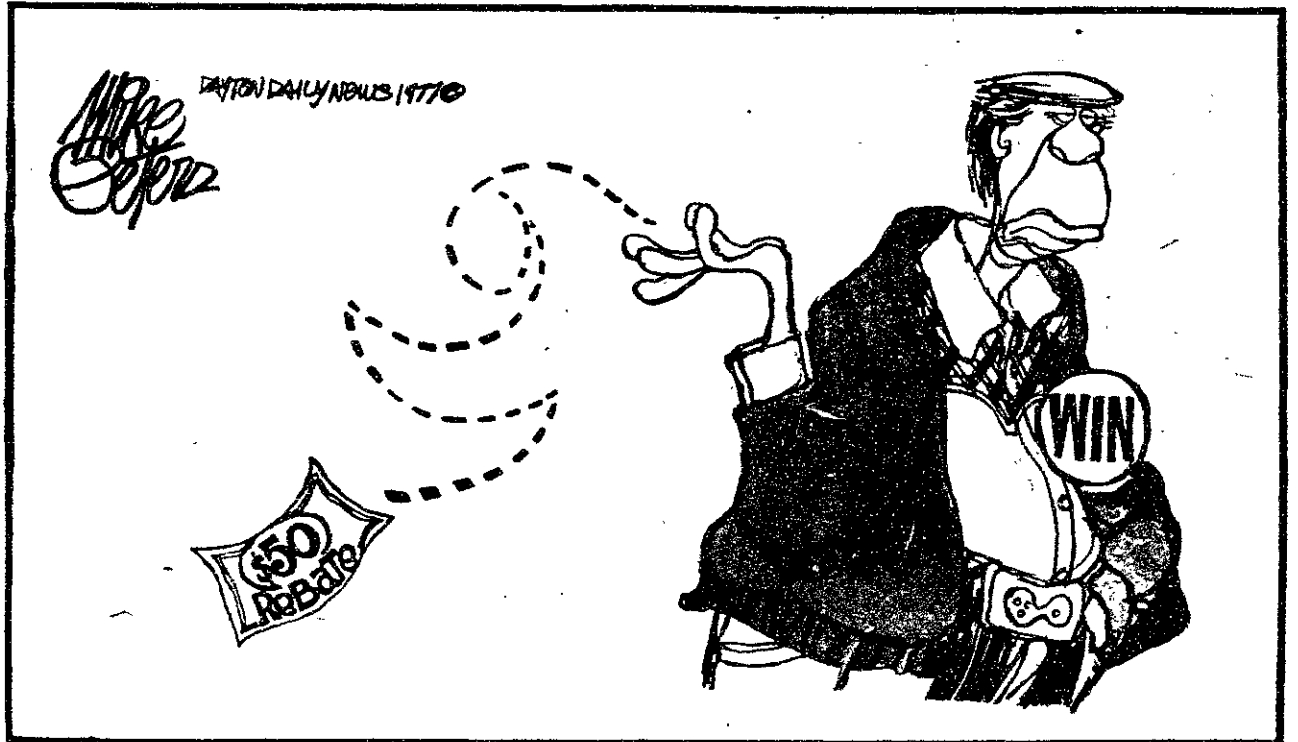
tinue this practice, though the GA still has veto power over the selections. However, should the GA not be in session, Nomcomm can select its own members without subsequent approval by any aspect of Nomcomm procedures that I deplore, since it leads to the establishment of cliques on the Committee and removes the

Committee from under the scrutiny of the students it is supposed to serve.

I would favor selection of the representatives of Nomcomm by the General Assembly, as is presently specified in the UA constitution. But because of doubts that have been raised over the life expectancy of the GA, I can only conclude that some form of direct elections will be the best alternative to insure full student participation in the nominations process in the future.

Geoff Baskir '78

The Tech welcomes Letters to the Editor, which should be typed, triple-spaced, and not exceed 200 words. Unsigned letters will not be published, although an author's name will be withheld on request.



'Cheap energy' a costly myth

By Arthur Hu

By far the most widely believed and misleading energy myth is that the Arab oil embargo was the cause of the oil shortage — almost everywhere the two terms are used interchangeably. The fact is that the embargo had nothing whatsoever to do with the start of the oil shortage, and even at its height of effectiveness it accounted for only a small part of the shortage, and much of that can be accounted

for by government pricing and allocation policy as much as by the embargo itself.

If you do not believe it, look at the history of the oil shortage — the real origins can be traced back as far as the 1950's and the first real shortages cropped up before the summer of 1972. The shortages were well under way by the time the embargo came along in October 1973, and even then it did not have any real effect until December. The embargo aside, we could have imported all the oil we wanted, and the shortages would have been only slightly better.

How many people know that there was a shortage of refining capacity? How many people know that while the gasoline shortage was at a near critical state in early 1974 that, because of government energy policy, there was an actual surplus of light heating oil? And try these on for size — the allocation system in early 1974 scared off imports, new refinery construction, restricted gasoline supply unnecessarily, and on the whole did far more bad than good.

It is interesting to note that at the time, Ray Ash of the Office of Management and Budget (OMB) said that the energy crisis "is manageable, it's one-time, and it's short term." He also said that the shortages would be over by summer, and the OMB recommended that the allocations should be eased, drawing down the high inventories to ease the shortages. Many critics warned that unless the allocations were eased, the country might fall into a deep recession. What was the reply of the Federal Energy Office? "Ash should keep his cotten pick'n hands off of energy policy." They kept the allocation program.

Isn't it odd that the shortages were out by the summer of 1974, and that one of the worst recessions in history hit in 1975? I'm sure most people think it was caused by the embargo — I think this will dispell some myths.

It is important to note that the gas shortage was essentially a

rerun of the oil shortage — but with one important difference. We could not blame the Arabs this time. So we blame it on the oil companies. But does anyone realize that the gas shortage has been around even longer than the oil shortage, and in fact, was partially responsible for that one too?

The cause of the shortage was

perspectives

essentially the same as that for oil — not the oil companies, as the so-called consumerists think, but in the ridiculously low price of gas which both encourages wasteful use, and discourages use of alternatives, and discourages exploration for, and drilling of gas.

As of 1974, per unit heat, gas was four times cheaper than coal, and much cleaner, and easy to use. It also held a similar competitive edge over such alternatives as heating oil, and generated electricity. Is it any wonder that coal has fallen into disuse? Who would be crazy enough to use coal with gas and oil being so much more cheaper and practical? Apparently Carter thinks that we are.

At the same time, gas is not cheap to find and produce. Most of the easy deposits have been

straight. The fact is that this is a capitalist society, and the one purpose of the oil company is not to provide the nation with oil, as their ads would lead us to believe, but to make money.

Is not it funny how they do not contradict each other at all? That is the beauty of capitalism. It is only when we start regulating prices that we run into trouble. By urging low prices, the so-called consumerists are committing energy suicide, because low prices can only aggravate the shortage, and force prices even higher in the long run. I like to call this policy "cheap energy at any price."

What we really need is a realistic pricing system. If coal is the cheap and plentiful energy source Carter wants us to rely on, it will first have to be indeed cheaper and more plentiful. When oil and gas prices reach a certain point, this will come naturally. Conservation will also come naturally — why conserve when it is cheaper and more convenient to waste energy? Insulating a house, for example doesn't make much economic sense unless the energy costs are significant.

Contrary to popular opinion, we have more than enough energy to carry us beyond the year 2000 — but it has to be found, and it won't be found unless it is made economically

"we need a realistic pricing system"

found, and the newer ones are far more difficult and expensive to find and exploit. It takes a hefty incentive to make the return on investment good enough for an oil company to take the risk and expense to develop a new gas field. Obviously, if the price is lousy, it would not pay to drill, and if it is lucrative, it will pay to drill like crazy. And history bears this out.

It is people like Senator Jackson who only look at production level, and say that incentive does not work. It takes a good five years at least for exploration efforts to show up the production level, so let us get that fact

feasible. For example, there's plenty of oil in oil shale and tar sands — but it's super expensive. And we won't switch to alternate energy sources such as solar energy, (which is not free and limitless) unless they're viable economically. That won't happen if energy stays as cheap as it is now.

To beat the energy crisis, people will first have to get rid of myths such as the evil Arabs and oil companies, and cheap energy. We must know that the causes of the shortages lie not in some scapegoat, but in ourselves, and in the government we are responsible for.

The Tech

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* Registration Material for the 1976 summer session will be available Monday, April 25, at the Registrar's Office, E19-335.

The Registration Forms must be filled in and returned to the Registrar's Office by Wednesday, May 11.

* Sir Robert Birley, a British observer and critic of the education provided to Africans in South Africa, will be the speaker at a noon-time seminar at the Division for Study and Research in education on Wednesday, April 27. For information, call Janet Norman x3-7063.

* Both men and women are needed to help out during this summer's program of scouting activities. If you will be in Cambridge this summer, why not spend some of your time organizing activities or teaching skills to local scouts? Give us a call! Contact: Yale Zussman, 494-9205, or Mark Mueller x3-5343.

* Dr. Fritjof Capra, a high-energy physicist at the Lawrence Berkeley Laboratory of the University of California, will be giving a lecture on the

"Tao of Physics" at Boston University. Dr. Capra will explore the parallels between the fundamental concepts of modern physics and the basic ideas in the mystical traditions of the Far East.

The lecture will be held on Friday, April 22nd, at 8pm, at Boston University's College of Liberal Arts, Room 12, 725 Commonwealth Ave. For more information call 965-4491.

* The Waltham Lions Club is sponsoring a bicycle relay race Sunday May 1 at 1:00pm. The race will consist of teams of four riders, male or female using one bike per team with a route around the City of Waltham. There will be two divisions, a junior division for people 14 and under, and a senior division for people 15 and over. The race will start at the Chesterbrook Restaurant, 260 Lexington St. Waltham, Mass. There is no entrance fee. Registrations for the race are being taken at the Aworthy Bicycle Company, 424 Moody St. Waltham. For information call 893-8769.

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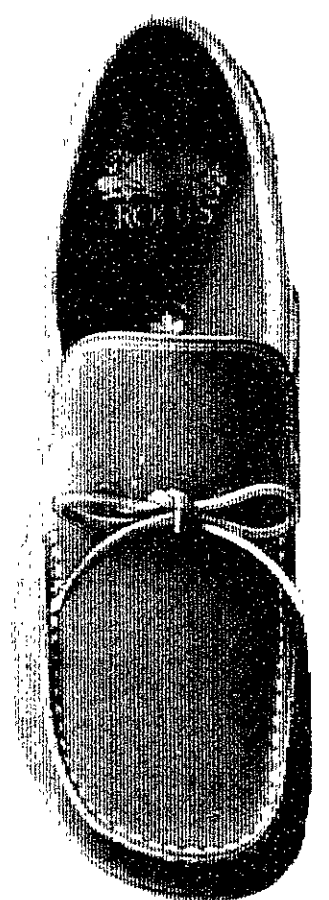
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* Oceanographer Jacques Cousteau will address the forum audience and take questions. The talk will be held in the Pound Building of Harvard Law School in Cambridge at 8pm on Monday, April 25. There will be a \$2.00 admission charge. For information call 495-4417.

* The Sierra Club will celebrate Earth Day with a wine and cheese tasting get-together on Friday, April 22, 5:30-8:00pm at 3 Joy Street in Boston. There will be lots of eats, friendly people, and six different kinds of wine. Everyone's welcome. Admission is \$5 per person. For information, call the Sierra Club office at 227-5339.

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arts

Boston Co. smoothly produces Merchant

The Merchant of Venice, presented by the Boston Shakespeare Company, Thursdays and Saturdays at 8pm through June 4, at the Company's Theatre at Berkeley and Marlborough Streets in Back Bay. Student Rush discounts are available. For information, call 267-5600.

By Gwen Freeman

The Boston Shakespeare Company is less than two years old. Their enthusiasm and creativity reflect their youth, yet their production of one of Shakespeare's most challenging plays was carried out smoothly and in a professional manner.

The Merchant of Venice is a very difficult play to produce as there is a great deal of room for interpretation of the characters' personalities. It can be played as a light comedy or a black tragedy, full of hatred and vengeance. In this production, the director, Bill Carn, chose a route leaning towards tragedy, with Shylock, the Jew,

being absolutely crushed by the end of the play.

The play opens with Antonio, the merchant of Venice (Richard Moses), worrying about his fortune, which is entwined with how his trading ships fare on the sea.

Yet even though his fortune is uncertain, his credit is still good. He is able to borrow money from Shylock the Jew (Ramón Ramos) for his friend Bassanio (Sterling Swann), who needs it to woo his love, Portia (Anita Barzman).

Unfortunately, Portia is not really free to return Bassanio's love. Her father's will states that her suitors must choose correctly amongst three chests of gold, silver and lead. If they choose the chest with her picture in it, then they are permitted to marry her and inherit her father's estate.

Antonio, who has cursed the Jew in the past, is now forced to rely upon him. Shylock tries to get revenge by demanding

a pound of Antonio's flesh if he fails to pay back his debt in time.

Unable to repay his loan, Antonio sends a plea of help to Bassanio, whose new wife, Portia, saves the day. She disguises herself in the court scene as a lawyer and legally prevents Shylock from collecting his bond.

The most important piece of attire is a necklace. Common to all of the characters, it symbolizes their identity. Bassanio and his love, Portia, wear jewels in their necklaces, indicating that they are more interested in love than religion. All the other Christians wear crosses which resemble badges of authority more than anything else. Shylock and Jessica each start the play wearing the star of David.

Jessica's first necklace is cast into the street when she elopes with Lorenzo. She receives from him a cross which signals her conversion to Christianity. Her old necklace is left on the ground for Shylock to find in a brief, wordless scene at the end of the act.

As the play ends, Shylock has lost his property and the right to his own religion. Gratiano (Richard Cochrane), in a fit of thoughtless cruelty, tears off the old necklace and substitutes a cross. The Christians all contribute to Shylock's distress, but they picture their world as a romantic and lighthearted place. Everything ends well for the various lovers, but there are still many somber overtones to the play.

Ramón Ramos, as Shylock, is the most commanding presence on stage. One cannot help sympathizing when he is hurt by the Christians' scorn, by his daughter's desertion and theft, and by the failure of the Venetian courts to help him win his legal case, even though it is a cruel and heartless one. No one in the play is willing to speak up for Shylock, as a man or as a Jew. One feels that if his world wasn't so unjustly prejudiced, he would not have suffered so.

The comic scenes of the Christians' world are outstanding. Especially noteworthy was Grey Johnson's performance of Launcelot Gobbo, a servant of Shylock, as are Anita Barzman (Portia) and S. Proctor Gray's Nerissa, her lady-in-waiting. The ladies' performance in Act V, where they accused their husbands of being cuckolds, was their brightest moment.

This last act provides an upbeat note to conclude on, but in the Boston Shakespeare Company's production the character of Shylock has been given sufficient depth and humanity that he is not to be forgotten, despite the fairy-tale happy ending that the other characters enjoy.

events

The Zamir Chorale of Boston will present its annual choral-orchestral concert honoring Israel Independence Day on April 24, 7:30pm, at Kresge Auditorium. Works will include scenes from Mendelssohn's *Elijah*, and the world premiere of Daniel Pinkham's *The Rainbow*. Tickets are \$6.50, \$5.50, \$4.50, and \$3.50; special rates for students and groups are available. For information call 926-3667.

The Greenwood Consort presents "In Praise of Folly," satirical music around 1500 at the Longy School of Music, 1 Folly Street, Cambridge. Tickets are \$3.50, (\$2.00 for students) and may be obtained by sending a check and self-addressed stamped envelope to: The Greenwood Consort, P.O. Box 1934, Boston, MA 02105.

Blues Guitarist Roy Buchanan will be presented in concert Saturday, May 7, at the Berklee Performance Center, Boston at 7:30pm. Tickets are on sale at the box office and Strawberies. Mail orders may be arranged by calling the box office, 266-1400, ext. 161.



Bassanio (Sterling Swann) picks the right chest and thereby wins Portia (Anita Barzman) in a scene from the Boston Shakespeare Company's production *The Merchant of Venice*

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Plays Coast Guard tomorrow

Baseball stuck in 4-game slump

By Tom Curtis

For nine innings Monday afternoon on Briggs Field MIT hurler Ken Smith '77 held undefeated and second-ranked Brandeis to one unearned run and six hits. Unfortunately, Brandeis ace Vin Hillyer limited the Beavers to one unearned run and only one hit, and collected a 2-1 victory over the Beavers in 11 innings.

Brandeis and MIT each scored an unearned run early in the game, sending the contest into extra innings tied 1-1.

The first Brandeis run was scored in the third by Bob DiGrazia. DiGrazia led off the inning with a single to right field. After stealing second and moving to third on a wild pitch, DiGrazia scored on a looping pop fly which dropped just out of reach of the third baseman.

MIT's only tally came in the fourth. With one out Dan Sundberg '77 and Jeff Felton '78 drew walks to place a runner in scoring position. On the next play Sundberg scored as the second baseman overthrew first trying to complete a double play.

Throughout the next five innings Smith and Hillyer pitched near perfect ball, allowing only a scattering of hits and avoiding serious trouble. In the 10th, however, Smith's brilliant effort began to fade and Coach Fran O'Brien replaced him with reliever Rick Olson '78.

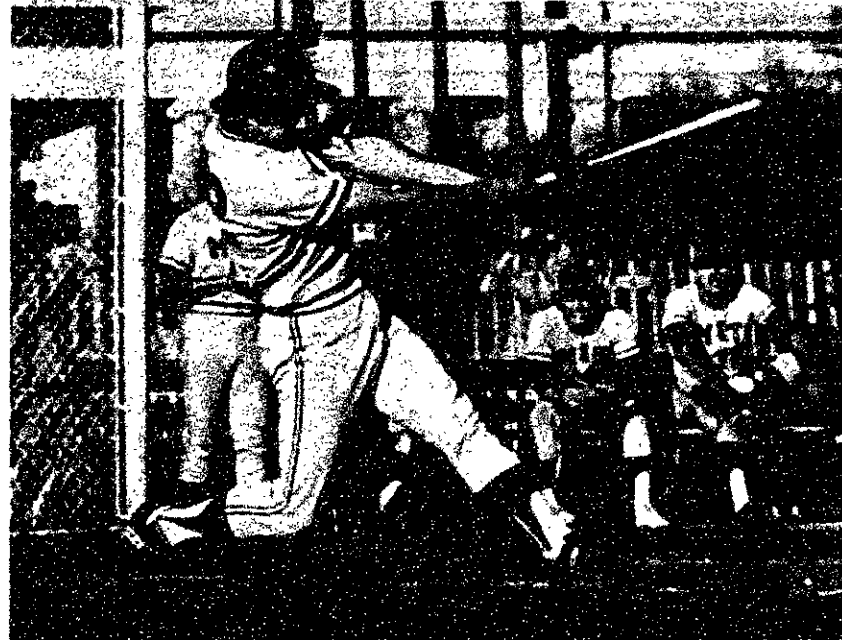
With Smith gone, MIT could no longer stop Brandeis. In the top of the 11th Brandeis leadoff batter Steve Finnegan hit a ground ball between first and second base. Second baseman Bob Maresca '78 reached the ball and made a wild desperation throw to first. The toss sailed wide and Finnegan reached second. The next batter, Bob Munns, made a bunt single, advancing Finnegan to third. Then, Mark Bonaiuto grounded out, scoring Finnegan and spoiling the Beavers' hope for an upset.

Sundberg's fourth inning run is the only run the Beavers have scored in their last four games as

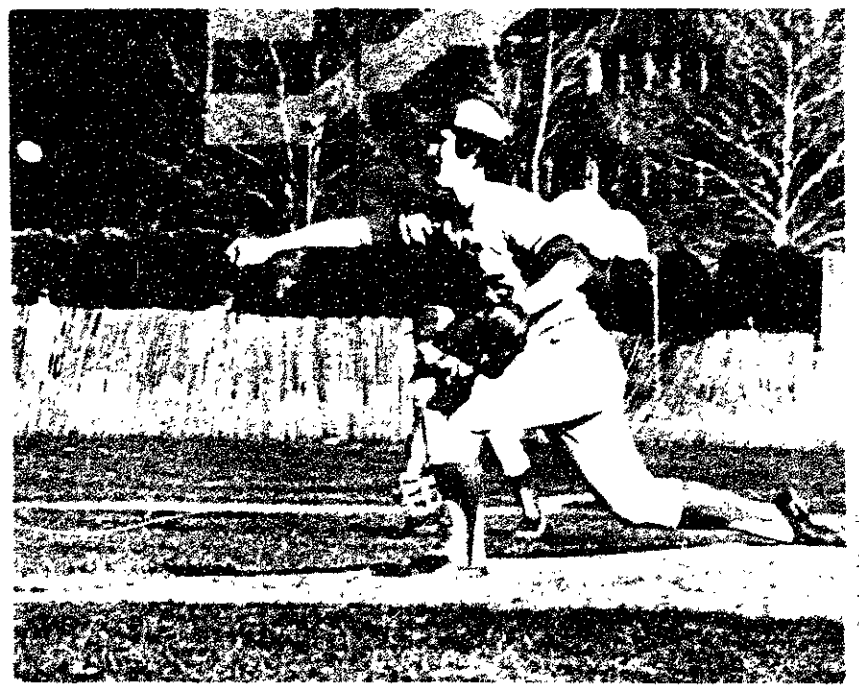
the team has been stalled in an offensive slump. Saturday, at Lowell University, the third-ranked team in New England, MIT was shutout twice, 2-0, 8-0. On Wednesday, the Beavers were blanked 3-0 by Boston State. A

strong pitching effort by senior Jim Datesh could not compensate for a lack of offensive punch.

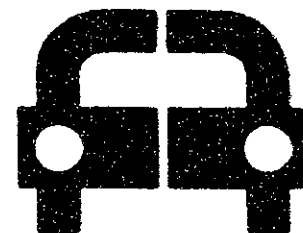
Tomorrow the Beavers take on Coast Guard, the eighth-ranked team in New England, at New London.



A home-run cut results in a foul ball for Joseph Kracunas '79 in Monday's game



Ken Smith '77 took the loss when Brandeis came to MIT on Monday



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Three MIT students experience the Marathon

By Glenn Brownstein

Fred Silver G is an experienced marathoner, having run three Boston Athletic Association (BAA) Marathons and several others over the past few years.

Frank Kenney '78 is a member of the MIT track team who "read about the race in the papers and thought it'd be really interesting for me to try one."

Tom Richard G is a relative novice to the sport of distance running, having started only a year and a half ago. He set his sights on the Boston Marathon as a personal goal to keep him running and would have succeeded if not for a hidden peril of late-night jogging in Boston.

There are probably about 5,000 such stories every year that go with a Boston Marathon; 3,000 of them official entrants who have run under a prescribed time limit in a race within the last twelve months, and almost as many others who compete unofficially.

And there are other stories as well: the enormous crowds that line the route, aptly-named "Heartbreak Hill" near Boston College, nearly 20 miles into the race, where scores of runners every year drop off their intended pace; the wheelchair marathoners, who receive a 15-minute head start from the Hopkinton starting line and turn in adjusted times comparable to the best marathoners; and the weather, always a factor in times and the level of attrition.

Four of these thousands of stories belonged to officially-entered MIT students: one of them, Steve Kissel '77, could not be contacted. Several other students ran unofficially, sporting times anywhere from three hours to over four. What is it that sends many of the best marathoners to Boston every April? More importantly, what is marathon running all about? Here are three of those 5,000 stories.

Frank Kenney has been running track for the last five years, two years in high school and three at MIT. When he heard about the Marathon in the papers, he decided to try it once and set out to qualify for the 1977 running.

His first attempt came in the ill-fated Silver Lake Marathon, marred by snow, sleet, and biting cold. Kenney completed the course in just over the three-hour time limit needed to qualify for the BAA, and so entered a Veterans of Foreign Wars Marathon in Lowell on March 13, just five weeks before Boston. His time of 2:46 not only qualified him for the Patriots' Day race, but also placed him 19th, a fringe benefit.

While many marathoners have taken to special dietary regimens in an attempt to give their bodies an edge over the grueling 26-plus miles, Kenney did what came naturally: "I used mostly track [team] workouts to prepare. I did some extra distance running when I was in Florida over spring vacation, but no dietary-type junk."

Ironically, although Kenney's track experience was a big factor in his preparation, he was able to enter the Marathon at the expense of participating in the varsity program this spring. "It's team policy, that anyone who runs in the marathon has to give up track for the term because it interferes with training. I guess Coach [Gordon Kelly] figures that if one guy wants to run the marathon, soon everybody'll want to, so that's the way it's done."

"As it is, I would've had trouble running Saturday [against Bowdoin] because of marathon training, but would've probably been back to normal by the next meet (tomorrow afternoon)."

Kenney told what happened the day of the race: "I got up about 10 o'clock, and just sat around and rested until the race began. One problem: I didn't do enough stretches before the race and got cramps almost immediately after the start."

"It went pretty well until the 18-mile mark, at which point I'd done 1:50 (six-minute miles). Then I died and finished in about 3:03 [sic — Kenney's official time was three hours, 50 seconds]. The heat was definitely a factor."

More than one million spectators lined the route Monday afternoon, but that didn't bother Kenney at all: "People were good — there were lots of them handing out drinks on the way, although it wasn't too easy to tell what it was sometimes."

One thing does stand out in his mind, however: "the race was great, especially in Wellesley — all the girls went nuts when they saw my MIT track T-shirt."

For Fred Silver, it was his third effort on the Boston course, and a successful one. Not because he ran a very respectable 2:52:28 for 551st place, but because he ran.

Much has been written about the "loneliness of the long distance runner," but perhaps "loneliness" is not the proper word to describe it. Running is a kind of "soul food," especially the marathon, in which the personal goal is uppermost in every runner's mind; not necessarily to win, although the world-class runners do consider that, but to do your best, whatever that may be. And the atmosphere in Boston is extremely conducive to the individual pursuit.

According to Silver, "in Boston it's like running in the Olympics without being the Olympic champion — the crowd cheers for everyone. It's a different type of feeling: to know that no matter how fast you ran, you finished."

"It's the atmosphere here, all the runners — this year, I walked the first three minutes of the race because of so many people running — meeting people, the crowd support. It's probably the only day of the year that there are all smiling faces in the crowd and everyone's happy."

The course itself: "it's different from



MIT marathoner Frank Kenney '78 (1860) on his way to the finish line in the Boston Marathon

most. It starts downhill and ends downhill; it's difficult to run downhill when you're tired. And the weather's so unpredictable: two years ago it was 55 degrees, last year about 95, and around 80 Monday."

Silver was a javelin thrower in college, although he ran track in high school. "I'm really interested in running, like it, and the Marathon is a good reason to train. I saw some guys on TV running it, and that's how I got the idea originally."

Boston was Silver's third marathon in the last year, and his training method was roughly the same for all of them. "I run 90 miles each week for the eight weeks prior to the race. I do mostly physical training; I don't really change my diet before a marathon."

And although Silver's stay at MIT will end this term, he intends to be back next year, as does grad student Tom Richard, who fell victim to a typical danger of training in Boston: he stepped in a Harvard Bridge pothole while running and pulled a muscle, cutting off his training and all hopes of running in the Boston Marathon.

Richard admits candidly, "It was really stupid, running in the dark on the bridge. I run at night because it's the only time I have free: being a grad student makes it impossible to get any time during the day. So I was running on the Boston side of the Harvard Bridge about three weeks ago and hit a pothole, pulling a muscle in my right foot."

Unlike Silver and Kenney, Richard is a newcomer to running, having only "gotten into running about a year and a half ago. I didn't run before that. Once I got into running, I thought that I might as well try to do the Boston Marathon."

Richard succeeded in qualifying for the Boston Marathon in his first marathon.

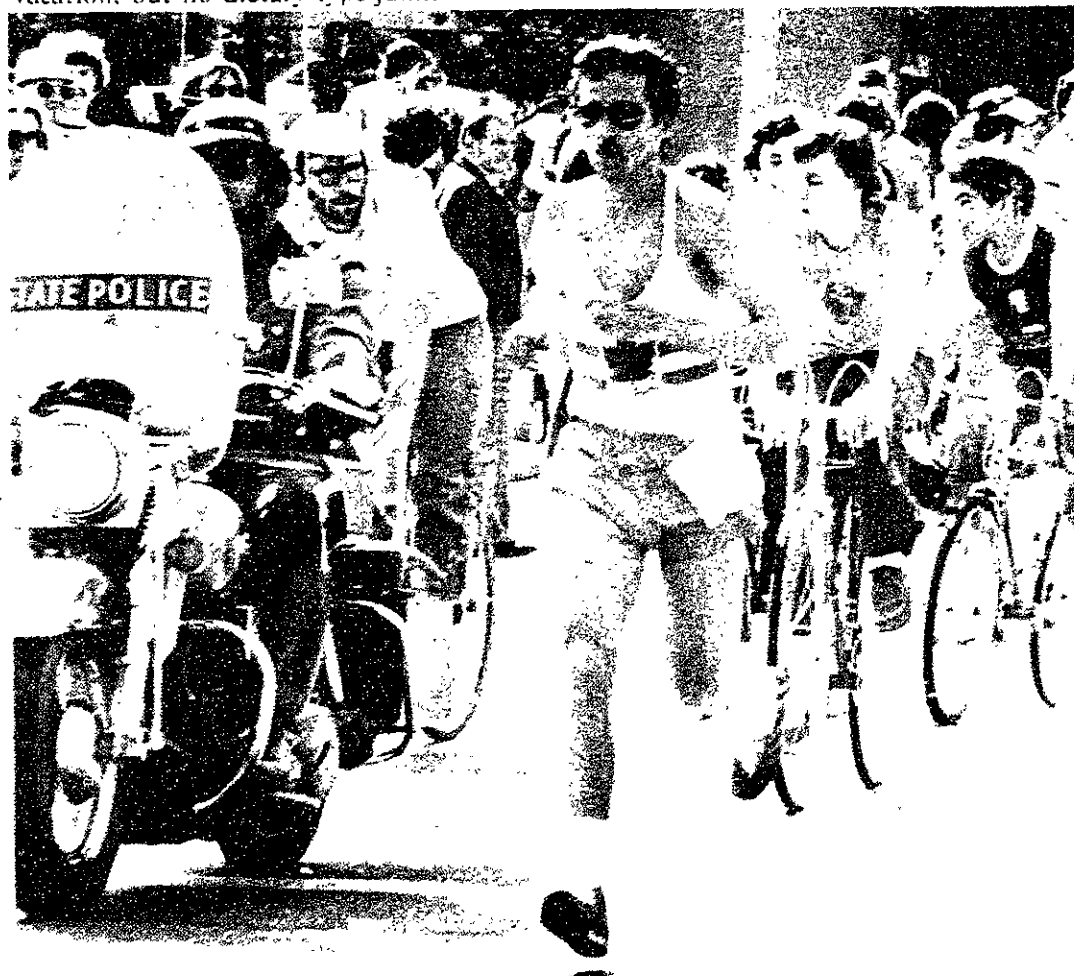
the Ocean State Bicentennial Marathon in Newport, RI last September. "I ran 10 and a half miles each day for two or three months before the race. I qualified, but I decided that I'd run 16-mile circuits for Boston because I felt I needed it after my Rhode Island experience — it really hurt at the end of the race."

"It was a bad winter for training I was able to get out only when the snow finally melted around late February. Once I started running, I decided that the week before the marathon I'd go down to 10 miles each day for three days, then do just three or so miles a day for the last four days before the race. But then I got injured... it's really a blow."

Like most marathoners, however, Richard's year-long quest to run Boston was not a "one-shot deal;" he's determined to reach the starting line in 1978. "I'll do it again next year, and I'll make it; I won't make a mistake training."

For Fred Silver, Frank Kenney, and Tom Richard, the BAA Marathon is something special, something unique. Marathoning is one of the only sports in the world where a first-time competitor can compete side-by-side with world-class athletes. Importantly, it's a sport where winning is not crucial, except the victory of the spirit over the body — man was not designed to continuously run 26 miles.

All of Boston shares in that spiritual triumph every Patriots' Day. It is their joy combined with the runners' effort that have made the Boston Marathon what it is — the most publicized, best known, largest annual marathon in the world. It is an experience that several MIT students among thousands of other runners achieve each year, and one that most of us less inspired spectators come out to enjoy each spring.



Marathon runner Jerome Drayton (18) of Canada on his way to victory in Boston's Patriots' Day event



Veli Bally of Turkey steams through the streets of Boston for a second place finish in the BAA Marathon.